

In the claims:

Please amend the claims as shown below:

5 1. (Currently amended) A method used in a computer,
comprising:

providing a logical theory ~~(12, 30)~~ having clauses;
~~generating providing~~ a rule ~~(14)~~ that is a resolvent of ~~that~~
~~has been derived from the clauses in the logical theory, and~~
10 ~~for which the derivation of the rule is provided in the form~~
~~of a partial proof tree having nodes;~~

~~retrieving providing a set of examples (16);~~
~~generating providing derivations of the examples from the~~
~~clauses in a proof tree (18, 40) from the example (16) using~~
15 ~~the logical theory (12, 30) in a form of proof trees;~~
~~transforming the each proof tree (18, 40) into a database (20,~~
~~42) of a coverage check apparatus (28) using a first process~~
~~sequence;~~

~~converting the rule (14) into a partial proof tree (60) having~~
20 ~~nodes (62, 54, 66);~~

~~transforming the partial proof tree into a database query (22)~~
~~of the coverage check apparatus (28) using a second process~~
~~sequence; and~~

~~executing the query (22, 72) to identify tuples in the~~
25 ~~database (20, 42) that correspond to the nodes of the a~~
~~partial proof tree.~~

30 2. (Currently amended) The method according to claim 1 wherein
the method further comprises determining whether the partial
proof tree ~~(60)~~ is identical to a portion of the proof tree
~~(18, 40).~~

3. (Currently amended) The method according to claim 1 wherein
the method further comprises investigating for each rule ~~(14)~~

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and each example ~~(16)~~ whether the rule ~~(14)~~ covers the example ~~(16)~~.

4. (Currently amended) The method according to claim 3 wherein
5 the method further comprises investigating whether a condition
part of the rule ~~(14)~~ is satisfied by the example ~~(16)~~.

5. (Currently amended) The method according to claim 1 wherein
10 the method further comprises making the partial proof tree
~~(60)~~ more limiting than the logical theory ~~(12, 30)~~.

6. (Original) The method according to claim 1 wherein the
method further comprises concluding that the rule does not
cover the example when no match is found in database tables.

15 7. (Original) The method according to claim 6 wherein the
method further comprises concluding that the rule does cover
the example when a match is found in database tables.

20 8. (Original) The method according to claim 1 wherein the
method further comprises determining whether the tuples found
in the database are associated with the same example.

25 9. (Currently amended) The method according to claim 1 wherein
the method further comprises using the logical theory ~~(12, 30)~~
to describe all possible rules that may be created.

30 10. (Currently amended) The method according to claim 1
wherein the method further comprises the query checker ~~(24)~~
checking whether or not the query ~~(22)~~ gives an empty result.